

List of Free-living and Plant-parasitic Nematodes Recognized from Egypt hitherto

By

M. M. ABOU-EL-NAGA*

Abstract. 120 species and 2 subspecies belonging to 31 families and 56 genera of free-living and plant-parasitic Nematoda are listed in the present work. These species represent the nematode fauna recorded till now from Egypt. The most abundant genera in order of frequency of occurrence were *Tylenchorhynchus*, *Pratylenchus*, *Meloidogyne*, *Helicotylenchus*, *Hoplolaimus*, *Xiphinema*, *Rhabditis* and *Cephalobus*.

Research work has been conducted for demonstrating the numbers, types and characteristics of nematodes living free and as plant parasitic in Egypt.

Between 1955 and 1962 OTEIFA et al. called attention to the circumstance that in cultivated fields and plots a wide range of known plant-parasitic Nematoda were to be found, such as *Meloidogyne* sp., *Tylenchorhynchus* sp., *Xiphinema* sp., and *Rhabditis* sp., as well as a great number of forms living free such as *Acrobeles* sp., *Cephalobus* sp. and *Dorylaimus* sp.

In 1962 the same author registered 10 species belonging to the genus *Pratylenchus* which accompanied the economic crops in Egypt.

In addition, OTEIFA (1964) drew up a taxonomic key of the common nematodes accompanying field crops, and described the stand of plant-parasitic nematodes in Egypt. His list includes more than 52 species which accompany economic plants.

TARJAN (1964) described new species belonging to the family Hoplolaimidae, and also listed 38 species of plant-parasitic nematodes in the same year.

Conducting research work on some freshwater samples ANDRÁSSY (1958) registered 14 species as new for the Egyptian fauna. Three of these were to be considered new for science, too.

ELNILIGY (1970) found two new species belonging to the family Hoplolaimidae, SHAFIE et al. (1970) could similarly record one new species of the family.

In his M. Sc. thesis MANSOUR (1972) registered 24 species, out of which 20 were new to the Egyptian fauna.

*Dr. Mohamed M. Abou-El-Naga, ELTE Állatrendszerterületi és Ökológiai Tanszék (Zoosystematical and Ecological Institute of the Eötvös Loránd University), 1088 Budapest, VIII. Puskin u. 3.

The present study is intended for a basis of elucidating the present stand of the nematode fauna of Egypt. In order of frequency, the richest genera are as follows: *Monhystera*, *Tylenchorhynchus*, *Helicotylenchus*, *Hoplolaimus*, *Pratylenchus*, *Mylonchulus*, *Mesodorylaimus*, *Longidorus* and *Xiphinema*.

The nematode species were ranked among the nomenclature and identified according to ANDRÁSSY's (1976) system.

120 species and two subspecies of nematodes representing 31 families are listed. The numbers in *italics* after the names of nematodes refer to the literature (see References).

Fam. Monhysteridae

1. **Monhystera elegantula** SCH. STEKHOVEN, 1935 – 3
2. **M. filiformis** BASTIAN, 1865 – 21
3. **M. macramphis** FILIPJEV, 1930 – 3
4. **M. parva** BASTIAN, 1865 – 3
5. **Theristus borosi** ANDRÁSSY, 1958 – 3

Fam. Diplolaimelloididae

6. **Diplolaimelloides delyi** ANDRÁSSY, 1958 – 3

Fam. Cylindrolaimidae

7. **Cylindrolaimus communis** DE MAN, 1880 – 21

Fam. Plectidae

8. **Plectus sambesi** MICOLETZKY, 1915 – 3

Fam. Chromadoridae

9. **Chromadora germanica** BÜTSCHLI, 1874 – 3

Fam. Cephalobidae

10. **Cephalobus persegnis** BASTIAN, 1865 – 2
11. **Heterocephalobus buchneri** (MEYL, 1953) ANDRÁSSY, 1967 – 21
12. **H. elongatus** (DE MAN, 1880) ANDRÁSSY, 1967 – 32
13. **H. teres** (THORNE, 1937) ANDRÁSSY, 1967 – 21

Fam. Panagrolaimidae

14. **Panagrolaimus wichmanni** RÜHM, 1956 – 2
15. **Panagrellus dorsobidentatus** (RÜHM, 1956) BAKER, 1962 – 21

Fam. Rhabditidae

16. **Mesorhabditis spiculigera** (STEINER, 1936) DOUGHERTY, 1953 – 3
17. **M. ultima** (KÖRNER in OSCHE, 1952) DOUGHERTY, 1955 – 21
18. **Rhabditis axeii** (COBBOLD, 1884) DOUGHERTY, 1955 – 2
19. **Rhabditolaimus crassus** (KÖRNER, 1954) ANDRÁSSY, 1958 – 2

Fam. Aphelenchidae

20. *Aphelenchus avenae* BASTIAN, 1865 – 17, 28

Fam. Aphelenchoididae

21. *Aphelenchoides parietinus* BASTIAN, 1865 – 33

Fam. Anguinidae

22. *Anguina tritici* (STEINBUCH, 1799) CHITWOOD, 1935 – 17, 28

23. *Ditylenchus angustus* (BUTTLER, 1913) FILIPJEV, 1936 – 37

24. *Pseudhalenchus anchilisposomus* TARJAN, 1958 – 44

Fam. Psilenchidae

25. *Basiria graminophila* SIDDIQI, 1959 – 44

26. *Psilenchus aestuarius* ANDRÁSSY, 1962 – 15, 44

27. *P. hilarulus* DE MAN, 21, 44

Fam. Neotylenchidae

28. *Boleodorus thylactus* THORNE, 1949 – 15

Fam. Tylenchorhynchidae

29. *Merlinius brevidens* (ALLEN, 1955) SIDDIQI, 1970 – 15

30. *M. nothus* (ALLEN, 1955) SIDDIQI, 1970 – 15

31. *Tylenchorhynchus brassicae* SIDDIQI, 1961 – 44

32. *T. capitatus* ALLEN, 1955 – 25

33. *T. clarus* ALLEN, 1955 – 12, 15, 35

34. *T. clavicauda* SEINHORST, 1968 – 36, 44

35. *T. cylindricus* COBB, 1913 – 36, 44

36. *T. dubius* (BÜTSCHLI, 1873) FILIPJEV, 1936 – 33

37. *T. goffarti* STURHAN, 1966 – 15

38. *T. kegenicus* LITVINOVA, 1946 – 44

39. *T. latus* ALLEN, 1955 – 35, 36, 44

40. *T. martini* FIELDING, 1936 – 25

Fam. Belonolaimidae

41. *Telotylenchus ventralis* LOOF, 1963 – 44

Fam. Hoplolaimidae

42. *Helicotylenchus agricola* ELMILIGY, 1970 – 14

43. *H. cavenessi* SHER, 1966 – 13

44. *H. digonicus* PERRY, 1959 – 33, 36

45. *H. dihystera* (COBB, 1893) SHER, 1961 – 13, 33, 36

46. *H. egyptiensis* TARJAN, 1964 – 43, 44

47. *H. erythrinae* (ZIMMERMANN, 1904) GOLDEN, 1956 – 25

48. *H. mangiferensis* ELMILIGY, 1970 – 14

49. *H. microlobus* PERRY, 1959 – 44

50. *H. multicinctus* (COBB, 1893) GOLDEN, 1956 – 13, 44

51. **Hirschmanniella gracilis** (DE MAN, 1880) LUC & GOODEY, 1964 - 25
 52. **H. oryzae** (BREDA DE HAAN, 1902) LUC & GOODEY, 1964 - 44
 53. **Hoplolaimus aegypti** SHAFIE & KOURA, 1970 - 38
 54. **H. columbus** SHER, 1963 - 35, 36, 39
 55. **H. galeatus** COBB, 1913 - 33, 36
 56. **H. pararobustus** (SCH. STEKHoven & TEUNISSEN, 1938) SHER, 1963 - 13
 57. **H. tylenchiformis** DADAY, 1905 - 25
 58. **Radopholus similis** (COBB, 1893) THORNE, 1949 - 23, 44
 59. **Rotylenchoides variocaudatus** LUC, 1960 - 33
 60. **Rotylenchulus reniformis** LINFORD & OLIVEIRA, 1940 - 24, 30, 31
 61. **Rotylenchus robustus** (DE MAN, 1876) FILIPJEV, 1936 - 36
 62. **Scutellonema blaberum** (STEINER, 1937) ANDRÁSSY, 1958 - 21
 63. **S. brachyurum** (STEINER, 1938) ANDRÁSSY, 1958 - 44

Fam. Pratylenchidae

64. **Pratylenchus brachyurus** (GODFREY, 1929) FILIPJEV & SCH. STEKHoven, 1941 - 24, 35
 65. **P. coffeae** (ZIMMERMANN, 1898) FILIPJEV & SCH. STEKHoven, 1941 - 24
 66. **P. crenatus** LOOF, 1960 - 35, 44
 67. **P. goodeyi** SHER & ALLEN, 1953 - 24
 68. **P. minyus** SHER & ALLEN, 1953 - 24
 69. **P. musicola** (COBB, 1919) FILIPJEV, 1936 - 23
 70. **P. neglectus** (RENCH, 1924) FILIPJEV & SCH. STEKHoven, 1941 - 35, 36
 71. **P. penetrans** (COBB, 1917) FILIPJEV & SCH. STEKHoven, 1941 - 24, 35, 36
 72. **P. pratensis** (DE MAN, 1880) FILIPJEV, 1936 - 24, 28
 73. **P. scribneri** STEINER, 1943 - 24
 74. **P. thornei** SHER & ALLEN, 1953 - 15, 24, 44
 75. **P. vulnus** ALLEN & JENSEN, 1951 - 24, 35
 76. **P. zeae** GRAHAM, 1951 - 35, 36

Fam. Heteroderidae

77. **Heterodera glycines** ICHINOHE, 1952 - 15, 41
 78. **Meloidogyne arenaria** (NEAL, 1889) CHITWOOD, 1949 - 10, 30
 78a **M. arenaria thamesi** CHITWOOD, 1949 - 10, 30
 79. **M. hapla** CHITWOOD, 1949 - 25
 80. **M. incognita** (KOFOID & WHITE, 1919) CHITWOOD, 1949 - 10, 19, 23
 80a **M. incognita acrita** CHITWOOD, 1949 - 10, 32, 30
 81. **M. javanica** (TREUB, 1885) CHITWOOD, 1949 - 7, 8, 11, 22

Fam. Criconematidae

82. **Hemicricconemoides mangiferae** SIDDIQI, 1961 - 15
 83. **Hemicyclophora oostenbrinki** LUC, 1958 - 25
 84. **H. similis** THORNE, 1955 - 25
 85. **Nothocricconema mutabile** (TAYLOR, 1936) DE GRISSE & LOOF, 1965 - 44

Fam. Tylenchulidae

86. **Tylenchulus semipenetrans** COBB, 1913 - 32, 36, 44

Fam. Alaimidae

87. **Alaimus primitivus** DE MAN, 1880 – 2

Fam. Tripylidae

88. **Tobrilus gracilis** (BASTIAN, 1865) ANDRÁSSY, 1959 – 3

Fam. Mononchidae

89. **Prionchulus muscorum** (DUJARDIN, 1845) WU & HOEPLI, 1929 – 21

Fam. Mylonchulidae

90. **Mylonchulus brachyurus** (BÜTSCHLI, 1845) ALTHERR, 1954 – 21

91. **M. brevicaudatus** (COBB, 1917) ALTHERR, 1954 – 21

92. **M. cavensis** (SCHNEIDER, 1940) ANDRÁSSY, 1958 – 21

93. **M. polonicus** (STEFANSKI, 1915) ANDRÁSSY, 1958 – 3

94. **M. sigmaturus** (COBB, 1917) ALTHERR, 1953 – 22

Fam. Anatonchidae

95. **Anatonchus kreisi** MEYL, 1961 – 35

Fam. Dorylaimidae

96. **Dorylaimus steinerianus** JOHNSTON, 1938 – 21

97. **Mesodorylaimus aegypticus** (ANDRÁSSY, 1958) ANDRÁSSY, 1959 – 3

98. **M. centrocercus** (DE MAN, 1880) GERAERT, 1966 – 21

99. **M. deuberti** (ANDRÁSSY, 1958) GOODEY, 1963 – 12

100. **M. intervallis** (THORNE & SWANGER, 1936) ANDRÁSSY, 1959 – 3

101. **Paradorylaimus filiformis** (BASTIAN, 1865) ANDRÁSSY, 1959 – 3

Fam. Qudsianematidae

102. **Discolaimoides bulbiferus** (COBB, 1906) HEYNS, 1963 – 6

103. **Eudorylaimus gracilis** (DE MAN, 1876) GOODEY, 1963 – 21

104. **E. rhopalocercus** (DE MAN, 1876) ANDRÁSSY, 1959 – 21

105. **E. subacutus** (ALTHERR, 1952) ANDRÁSSY, 1959 – 21

106. **Labronema estonicum** KRALL, 1957 – 21

Fam. Aporcelaimidae

107. **Aporcelaimus obscurus** (THORNE & SWANGER, 1936) HEYNS, 1966 – 28

Fam. Nardiidae

108. **Pungentus silvestris** (DE MAN, 1912) COOMANS & GERAERT, 1962 – 21

Fam. Longidoridae

109. **Longidorus africanus** MERNY, 1966 – 1

110. **L. elongatus** (DE MAN, 1876) THORNE & SWANGER, 1936 – 32, 33, 35

111. **L. laevicapitatus** WILLIAMS, 1959 – 36, 44

112. **L. taniwha** CLARK, 1963 – 36, 44

113. *Paralongidorus georgiensis* (TULAGANOV, 1937) SIDDIQI, 1965 — 1, 36, 44
114. *Xiphinema americanum* COBB, 1913 — 28, 35, 45
115. *X. arenarium* LUC & DALMASSO, 1964 — 36, 44
116. *X. elongatum* SCH. STEKHOVEN & TEUNISSEN, 1938 — 36, 44
117. *X. insigne* LOOS, 1949 — 36, 44

Fam. Trichodoridae

118. *Trichodorus christiei* ALLEN, 1957 — 25
119. *T. minor* COLBRAN, 1956 — 36, 44
120. *T. teres* HOOPER, 1962 — 35, 36, 44

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